UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _13 November 2009_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1,2,4-6,13,14,16-20 and 22-24_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1, 2, 4-6, 13, 14, 16-20 and 22-24_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   This **Final Office Action** is responsive to the amendment of 30 May 2009.

Currently **Claims 1, 2, 4-6, 13, 14, 16-20 and 22-24** are pending in the application.
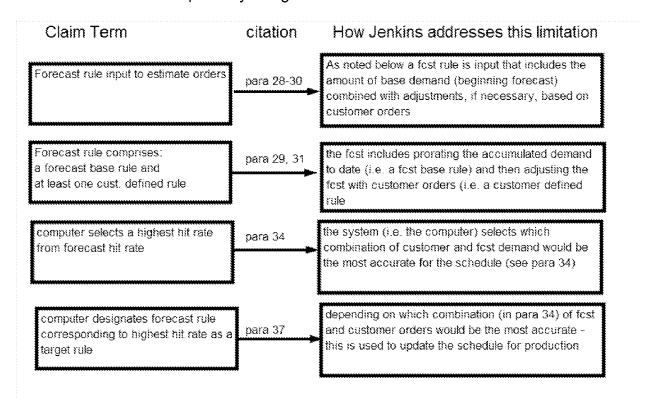
Response to Argument

2.   The applicant's arguments have been fully considered but are not persuasive.

The applicant argues that the newly amended limitations of Claim 1 re: "a

forecast rule comprising at least a forecast base rule and at least one customer defined

rule"

The examiner respectfully disagrees.

Claim Term	citation	How Jenkins addresses this limitation
Forecast rule input to estimate orders	para 28-30	As noted below a fcst rule is input that includes the amount of base demand (beginning forecast) combined with adjustments, if necessary, based on customer orders
Forecast rule comprises: a forecast base rule and at least one cust. defined rule	para 29, 31	the fcst includes prorating the accumulated demand to date (i.e. a fcst base rule) and then adjusting the fcst with customer orders (i.e. a customer defined rule
computer selects a highest hit rate from forecast hit rate	para 34	the system (i.e. the computer) selects which combination of customer and fcst demand would be the most accurate for the schedule (see para 34)
computer designates forecast rule corresponding to highest hit rate as a target rule	para 37	depending on which combination (in para 34) of fcst and customer orders would be the most accurate - this is used to update the schedule for production

> The system (in para 28-37) in planning, uses the combination of fcst demand (i.e. a fcst rule) and customer orders (i.e. a cust defined rule) that would provide the most accurate forecast. Sometimes the amount of customer orders overwhelms the fcst – sometimes the fcst itself makes more sense to use – sometimes a combination of these would be best. A production planner is trying to schedule production while balancing the difference between having enough mfg goods to meet demand while minimizing the amount of inventory in the system – thus the need for the most accurate forecast possible.

By their arguments, the applicant implies that the inclusion of customer orders fails to teach "a customer defined rule". However the applicant does not invoke lexicography in the specification as to what a "rule" is. The applicant does not even given an example of what a customer defined rule is in the specification, other than to describe their input. The examiner notes " "[t]he patentees lexicography must, of course, appear 'with reasonable clarity, deliberateness, and precision' before it can affect the claim." Renishaw P.L.C. v. Marposs Societa' Per Azioni, 158 F.3d 1243, 1249 (Fed. Cir. 1998) (quoting In re Paulsen, 30 F.3d 1475, 1480 (Fed Cir. 1994))."

The examiner looks to an ordinary and accustomed meaning as to what a rule is. Google defines a rule as "**a principle or condition that customarily governs behavior**". Jenkins takes into account customer orders that come in from customers – these orders are a "condition that customarily governs' behavior in that Jenkins' system

is governed by accounting for these orders in planning a schedule. Thus the receipt

and accounting of customer orders (which are defined by the customer) in Jenkins is as

much a customer defined rule, since the customer defines the number of orders placed.

The applicant's argument here is broader than what the claim entails regarding

what a customer defined rule is. The examiner has examined the specification and

drawings as to what a "customer defined rule" is. There is no description of what it is

other than its mere mention in the specification. Is it a priority weighting that the

customer chooses tied to price (i.e. the customer order is given higher priority than

forecast orders but pays a higher prices)? Is it a rule that enables the supplier to use

different materials in manufacturing that allow more flexibility in scheduling? The

specification and drawings do not say what it is, other than it is used in manufacturing

scheduling. The failure to disclose what the customer defined rule is (other than to

mention it in the specification and that it ties into the forecast) implies that it is old and

well known in the art. Even so, the examiner's position is that "rule" is such a broad

term as to be taught by the disclosure of Jenkins.

The applicant's arguments regarding a forecast rule and a forecast adjustment

rule are similarly addressed – there's no lexicographic invocation in the specification as

to what a forecast rule is or a forecast adjustment rule. Inputting data into a forecast (as

taught in para's 29-31) meets the broadest reasonable interpretation as to what a

forecast rule is (i.e. inputting an initial forecast) and a forecast adjustment rule (i.e.

tweaking or adjusting the forecast).

The applicant argues that Jenkins fails to forecast demand, and rather, that Jenkins ensures fulfillment of given demands, i.e. manufacturing orders, rather than actual forecasting. The applicant further alleges that Jenkins allocating current orders into the forecast really isn't forecasting at all, since Jenkins is not forecasting per se.

The examiner respectfully disagrees.

A forecast is an estimate or a prediction of something that is to occur in the future. In the context of manufacturing planning, a forecast is an estimate or prediction of what customer demand will be. The usual practice of forecasting in manufacturing planning is to use time periods into the future, where each time period has an associated production number (which Jenkins teaches - see para 31, adjusting time periods with customer orders).

The crux of the applicant's argument is that since Jenkins is adjusting a forecast, that Jenkin's teachings aren't really forecasting per se, but rather reallocating actual customer orders into a forecast schedule. What Jenkins illustrates, is the known process of adjusting a forecast based on improved information (i.e. in this case actual orders). The result of Jenkins teachings does not do away with the future forecast, but rather allocates production from forecast demand to actual demand, thus improving it. Forecast orders still remain in the plan. What has happened in Jenkins is that some of the forecast production allocation for orders that are anticipated has been switched to actual orders, but there are still forecast orders (i.e. orders which are anticipated, but don't yet have actual customer requests associated with them). The claim limitations of

a forecast rule to estimate orders is met, because the rule allocation of Jenkins still

provides for forecast orders in the plan.

For example, if a production planner has a forecast of 50 orders for a future

week, and orders for 20 are received resulting in the planner allocating production to 10

Monday and 10 Tuesday, according to Jenkins the planner would still maintain the

forecast of 30 remaining orders (Wed-Friday). In this case the forecast has been

adjusted by a rule. Also, in the art of production planning it would be understood that

such an operation would result in a production plan that is more accurate (i.e. if orders

for 20 have already been received, the likelihood is that the forecast of 30 is more

accurate than the original forecast of 50.)

Thus the rule of Jenkins is a forecast adjustment rule because it adjusts the

forecast to account for actual orders because the orders in the schedule are still

estimated based on that rule (i.e. the transition of forecast orders to be actual ones).

The applicant argues that the "forecast adjustment rule" of Jenkins is not a

"forecast rule to estimate orders".

The examiner respectfully disagrees.

The claim does not recite nor necessarily require that the forecast adjustment

rule is a forecast rule estimate orders. This limitation is not claimed. However, even if it

were claimed, it would be recognized that a forecast to meet demand is a forecast to

meet orders. Manufacturers such as taught in Jenkins, forecast production to make

goods that are ultimately to be sold (i.e. via an order). Taking a good out of finished

goods inventory requires an order. The goods forecasted and produced via the

production schedule in Jenkins are scheduled according to a forecast that is adjusted

(i.e. to include orders that occur during the planning and prior to production occurring) to

estimate future demand, i.e. future orders.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   **Claim 1, 4-6, 13, 16-19 and 22-24** are rejected under 35 U.S.C. 103(a) as being

unpatentable over Jenkins et al. (U.S. Pub No. 2002/0188499 A1) in view of

Supporting Quick Response Through Scheduling of Make-to-Stock

Production/Inventory Systems, M. Eric Johnson, Gary Scudder, 1999, Decision

Sciences, Volume 30 Issue 2, Pages 441 – 467 (hereinafter **Johnson**).

Regarding to **claim 1**, Jenkins et al. discloses the invention substantially as

claimed. Jenkins et al. discloses **a computer implemented method of dynamic**

customer demand forecasting (paragraph [0002], lines 1-2), **comprising using a**

computer (i.e. external system/web-client, see fig. 1b) **to perform the steps of:**

inputting at least one forecast rule (paragraph [0028], lines 1-4, paragraph [0029], lines 1-3); accumulating forecasted demand (paragraph [0030], lines 7-10),

selecting a highest hit rate from the forecast hit rate; and designating the forecast rule corresponding to the highest hit rate as a target rule (paragraph [0034], lines 1-3, paragraph [0037], lines 1-7).

Jenkins teaches using a database to store information for the data needed for the method steps (see para 19).

However, Jenkins et al does not explicitly disclose calculating at least one forecast hit rate, each of which corresponds to a forecast rule.

It is common knowledge in the prior art (Official Notice) to **calculate** (i.e. accumulate) **a forecast hit rate** (i.e. orders) **corresponding to a forecast rule** when accumulating forecasted demand.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made for the method of Jenkins et al. to include to feature of calculating at least one forecast hit rate (i.e. orders), each of which corresponds to a

forecast rule. The motivation for doing so would have been to adjust/modify the forecasted demand by selecting the highest hit rate as the target rule.

Regarding to claim 13, Jenkins et al. discloses the invention substantially as claimed. Jenkins et al. discloses a storage medium (i.e. external system/server, see fig. 1b) for storing a computer program providing a method of dynamic customer demand forecasting (paragraph [0002], lines 1-2), the method comprising the steps of: inputting at least one forecast rule (paragraph [0028], lines 1-4, paragraph [0029], lines 1-3); accumulating forecasted demand (paragraph [0030], lines 7-10); selecting a highest hit rate from the forecast hit rate; and designating the forecast rule corresponding to the highest hit rate as a target rule (paragraph [0034], lines 1-3, paragraph [0037], lines 1-7). However, Jenkins et al does not explicitly disclose calculating at least one forecast hit rate, each of which corresponds to a forecast rule. It is common knowledge in the prior art to calculate (i.e. accumulate) a forecast hit rate (i.e. orders) corresponding to a forecast rule when accumulating forecasted demand. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made for the storage medium of Jenkins et al. to include to feature of calculating at least one forecast hit rate (i.e. orders), each of which corresponds to a forecast rule. The motivation for doing so would have been to adjust/modify the forecasted demand by selecting the highest hit rate as the target rule.

Regarding to claim 19, Jenkins et al. discloses the invention substantially as

claimed. Jenkins discloses a system of dynamic customer demand forecasting

(paragraph [0002], lines 1-2), comprising: an operation computer (i.e. external

system/web client) (paragraph [0057], lines 1-5, see fig. 1b), inputting at least one

forecast rule (paragraph [0028], lines 1-4, paragraph [0029], lines 1-3), accumulating

forecasted demand (paragraph [0030], lines 7-10), selecting a highest hit rate from the

forecast hit rate, and designating the forecast rule corresponding to the highest hit rate

as a target rule (paragraph [0034], lines 1-3, paragraph [0037], lines 1-7); and at least

one database, coupled to the operation computer, storing the forecast rule, the forecast

hit rate, and the target rule (i.e. information for operation) (paragraph [0019], lines 1-3,

paragraph [0028], lines 1-6). However, Jenkins et al does not explicitly disclose

calculating at least one forecast hit rate, each of which corresponds to a forecast rule. It

is common knowledge in the prior art to calculate (i.e. accumulate) a forecast hit rate

(i.e. orders) corresponding to a forecast rule when accumulating forecasted demand.

Therefore, it would have been obvious to one having ordinary skill in the art at the time

the invention was made for the system of Jenkins et al. to include to feature of

calculating at least one forecast hit rate (i.e. orders), each of which corresponds to a

forecast rule. The motivation for doing so would have been to adjust/modify the

forecasted demand by selecting the highest hit rate as the target rule.

Furthermore regarding to **claims 1, 13 and 19**, Jenkins et al. discloses **wherein**

the forecast rule comprises a forecast base rule (i.e. forecast for the period)

(paragraph [0029], lines 1-3) **and at least one customer defined rule** (i.e. input by customer orders) (paragraph [0031], lines 1-2).

Regarding to claims 4, 16 and 22 Jenkins et al. discloses integrating (i.e. supplement) the forecast base rule and the customer defined rule into the forecast rule (paragraph [0031], lines 1-2 and 6-8).

Regarding to claims 5, 17 and 23, Jenkins et al. discloses the invention substantially as claimed. Jenkins et al. discloses prorating the forecast by demand to date (paragraph [0030], lines 1-3) and setting the need date on which the first demand occurs (i.e. date of the first order) (paragraph [0048], lines 5-6). However, Jenkins et al. does not explicitly disclose wherein the forecast base rule is produced according to the most current order. It is common knowledge in the prior art to produce the forecast base rule according to the most current order when prorating the forecast by demand to date. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made for the computer implemented method, apparatus, storage medium and system of Jenkins et al. to include the feature of wherein the forecast base rule is produced according to the most current order. The motivation for doing so would have been to dynamically forecast demand and efficiently develop delivery capabilities of customer orders based on the most current orders.

Regarding to claims 6, 18 and 24, Jenkins et al. discloses wherein the forecast hit rate is calculated according to orders (i.e. customer orders) (paragraph [0031], lines 1-2 and 6-8, paragraph [0034], lines 1-3, paragraph [0037], lines 1-7).

5.   Claim 2, 14 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Jenkins et al. (U.S. Pub No. 2002/0188499 A1) in view of Borders et al. (U.S. Pat.

No. 7,139,721 B2).

Regarding to claims 2, 14 and 20, Jenkins et al. discloses the invention

substantially as claimed. However, Jenkins et al. does not disclose providing the target

rule to a capacity allocation model for capacity allocation. Borders et al. discloses

providing customer order data (i.e. target rule) to determine an actual capacity allocation

distribution. Therefore, it would have been obvious to one having ordinary skill in the art

at the time the invention was made to combine the computer implemented method,

apparatus, storage medium and system of Jenkins et al. with the feature of providing

the target rule to a capacity allocation model for capacity allocation as taught by Borders

et al., as both Jenkins et al. and Borders et al. are directed to a computer implemented

method, apparatus, storage medium and system of dynamic customer demand

forecasting. The motivation for doing so would have been to efficiently develop delivery

capabilities of customer orders.

Conclusion

6.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

7.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Jonathan G Sterrett whose telephone number is 571-

272-6881. The examiner can normally be reached on Monday - Friday (EST).

        If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Beth Boswell can be reached on (571) 272-6737. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jonathan G. Sterrett/
Primary Examiner, Art Unit 3623
3-3-2010